

United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

31780

7590

09/24/2003

ERIC ROBINSON
PMB 955
21010 SOUTHBANK ST.
POTOMAC FALLS, VA 20165

EXAMINER

SARKAR, ASOK K

.____

ART UNIT

CLASS-SUBCLASS

2829

438-487000

DATE MAILED: 09/24/2003

ĺ	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
•	09/699,466	10/31/2000	Shunpei Yamazaki	0756-2222	8851

TITLE OF INVENTION: METHOD FOR FABRICATING A SEMICONDUCTOR DEVICE

				1 1 2	
APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1300	\$0	\$1300	12/24/2003

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

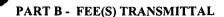
B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

 Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents Alexandria, Virginia 22313-1450

or Fax (703) 746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

31780

7590

09/24/2003

ERIC ROBINSON **PMB 955** 21010 SOUTHBANK ST. POTOMAC FALLS, VA 20165 Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name	
(Signature)	
(Date	

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699 466	10/31/2000	Shunnei Yamazaki	0756-2222	8851

TITLE OF INVENTION: METHOD FOR FABRICATING A SEMICONDUCTOR DEVICE

APPLN. TYPE	APPLN. TYPE SMALL ENTITY ISSU		EE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE	
nonprovisional	NO	\$1300)	\$0	\$1300	12/24/2003	
EXAMINER		ART UNIT		CLASS-SUBCLASS			
SARKAR, ASOK K 2829			ı	438-487000			
1. Change of corresponden CFR 1.363). Change of corresponded correspo	age, list (1) the nt attorneys or 1 ame of a single ared attorney or 2 agistered patent listed, no name 3 3						
3. ASSIGNEE NAME AN	D RESIDENCE DATA TO E	BE PRINTED ON T	THE PATEN	Γ (print or type)			
PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)							
Please check the appropria	te assignee category or catego	ories (will not be pr	inted on the p	oatent); 🗖 individual	corporation or other private g	group entity 🚨 government	
4a. The following fee(s) ar	e enclosed:	4b	. Payment of	Fee(s):			
☐ Issue Fee			A check i	n the amount of the fee(s) i	s enclosed.		
Publication Fee			☐ Payment	by credit card. Form PTO-2	2038 is attached.		
☐ Advance Order - # o	f Copies		The Dire	ctor is hereby authorized leount Number	by charge the required fee(s), or (enclose an extra	credit any overpayment, to	

(Authorized Signature) (Date)

Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

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PAPER NUMBER

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFIRMATION NO.

 09/699,466
 10/31/2000
 Shunpei Yamazaki
 0756-2222
 8851

 31780
 7590
 09/24/2003
 EXAMINER

 ERIC ROBINSON
 SARKAR, ASOK K

PMB 955 21010 SOUTHBANK ST. POTOMAC FALLS, VA 20165

2829 DATE MAILED: 09/24/2003

ART UNIT

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.



United States Patent and Trademark Office

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APPLICATION N	O. F	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699,466 10/31/2000 31780 7590 09/24/2003		10/31/2000	Shunpei Yamazaki	0756-2222	8851
			EXAM	EXAMINER	
ERIC ROBI	NSON		SARKAR, ASOK K		
PMB 955 21010 SOUT	HBANK ST	•	ART UNIT	PAPER NUMBER	
POTOMAC I			2829		
			DATE MAILED: 09/24/200	3	

Notice of Fee Increase on October 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on October 1, 2003. See Revision of Patent Fees for Fiscal Year 2004; Final Rule, 68 Fed. Reg. 41532, 41533, 41534 (July 14, 2003).

The current fee schedule is accessible from (http://www.uspto.gov/main/howtofees.htm).

If the fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due" but not the correct amount in view of the fee increase, a "Notice of Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice of Pay Balance of Issue Fee," if the response to the Notice of Allowance is to be filed on or after October 1, 2003 (or mailed with a certificate of mailing on or after October 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously-paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Effective October 1, 2003, 37 CFR 1.18 is amended by revising paragraphs (a) through (c) to read as set forth below.

Section 1.18 Patent post allowance (including issue) fees.

(a) Issue fee for issuing each original or reissue patent, except a design or plant patent:

(b) Issue fee for issuing a design patent:

(c) Issue fee for issuing a plant patent:

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

~			IXY/			
_ · · · · · · · · · · · · · · · · · · ·	Application No.	Applicant(s)				
Notice of Allowability	09/699,466	YAMAZAKI ET AL.				
Notice of Allowability	Examiner	Art Unit				
	Asok K. Sarkar	2829				
The MAILING DATE of this communication appearable All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this ap or other appropriate communication GHTS. This application is subject to	plication. If not include will be mailed in due o	ed course. THIS			
1. This communication is responsive to Amendment filed 9/1:	<u>1/2003</u> .					
2. The allowed daim(s) is/are <u>1-3 and 35-61</u> .						
3. \boxtimes The drawings filed on <u>31 October 2000</u> are accepted by th	e Examiner.					
4. ☑ Acknowledgment is made of a claim for foreign priority unc a) ☑ All b) ☐ Some* c) ☐ None of the:	ler 35 U.S.C. § 119(a)-(d) or (f).					
 Certified copies of the priority documents have 	been received.					
2. Certified copies of the priority documents have	been received in Application No. \underline{o}	<u>8/784,290</u> .				
 Copies of the certified copies of the priority does International Bureau (PCT Rule 17.2(a)). 	cuments have been received in this	national stage applicat	ion from the			
* Certified copies not received:						
5. Acknowledgment is made of a claim for domestic priority un	- ',','	ional application).				
(a) The translation of the foreign language provisional a		•				
6. Acknowledgment is made of a claim for domestic priority un	nder 35 U.S.C. §§ 120 and/or 121.					
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of						
7. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.						
8. ☐ CORRECTED DRAWINGS must be submitted. (a) ☐ including changes required by the Notice of Draftspers	son's Patent Drawing Review (PTO)-948) attached				
1) hereto or 2) to Paper No	son at atom Brawing Neview (1 10	040) attached				
(b) ☐ including changes required by the proposed drawing of	correction filed which has h	een approved by the F	vaminer			
(c) ☐ including changes required by the proposed drawing (c)						
(o) Indicating changes required by the attached Examinor	o , who have a series of the character o	omeo demon en aper i				
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.						
9. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.						
Attachment(s)						
 1 ☐ Notice of References Cited (PTO-892) 3 ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5 ☐ Information Disclosure Statements (PTO-1449), Paper No. 2. 7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material 	4∏ Interview Summ <u>3</u> . 6∏ Examiner's Ame	al Patent Application (Flary (PTO-413), Paper endment/Comment ement of Reasons for A	No			

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 12, 2003 has been entered.

Response to Amendment

2. Applicant's explanation of the instant invention in pointing the difference with the cited prior art was found to be convincing to the Examiner. Additionally, Applicant's amendments of claims 1 – 3 and 35 - 45 corrects the problems noted in Paper No. 20, paragraphs 5 – 8 and accordingly, the rejection to claims 1 – 3 and 35 – 51 based on 35 U. S. C. 103 (a) and double patenting is withdrawn.

Allowable Subject Matter

- 3. Claims 1-3 and 35-61 are now allowed.
- 4. The following is an examiner's statement of reasons for allowance:

Claims 1- 3, 36 - 39, 41 - 45 and 52 - 61 recite, inter alia, a method of forming a semiconductor device comprising the step of performing a plasma treatment to the semiconductor island. The art of record does not disclose or anticipate the above limitation in combination with other claim elements nor would it be obvious to modify the art of record so as to form a device including the above limitation.

Application/Control Number: 09/699,466

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Claims 35 and 40 recite, inter alia, a method of forming a semiconductor device comprising the step of forming an interlayer insulating film over the gate electrode wherein the interlayer insulating film comprises silicon nitride and forming a resin

material layer over the interlayer insulating film. The art of record does not disclose or

anticipate the above limitation in combination with other claim elements nor would it be

obvious to modify the art of record so as to form a device including the above limitation.

Conclusion

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asok K. Sarkar whose telephone number is 703 308 2521. The examiner can normally be reached on Monday - Friday (8 AM- 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 703 308 1233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Page 3

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 4918.

Asok K. Sarkar

September 22, 2003

WAMAND CUNEO

SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800